

Work Order ID 77176

77176

Page 1

November-28-11 9:02:06 AM

Item ID: D412-742-018 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Cable Guard
 Start Date: 28/11/2011 Start Qty: 2.00 ***2*** Cust Item ID:
 Required Date: 12/12/2011 Req'd Qty: 2.00 ***2*** Customer:
 Reference:

Approvals: Process Plan: MLS Date: 11/11/28 Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
DSI9330	Rev D								

100 0.00
100 DOCUMENT CONTROL
 DC Memo 0.00
 Document Control Photocopy bluefile & type labels per PPP D412-742-018 CHG002 8/12/11/19
HJ for MLS 12-1-18
(2)

110 0.00
110 Pick Kit
 Packaging Memo 0.00
 Packaging
SP 12-01-19

120 0.00
120 QC4- 100% Inspect kits for completeness
 QC Memo 0.00
 Quality Control
Snakes
(2)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval ² QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 77176***77176***

Page 2

November-28-11 9:02:06 AM

Item ID: D412-742-018

Accept

N900040100Setup Start ***NS1***

Revision ID:

Item Name: Cable Guard

Stop ***NS2***

Start Date: 28/11/2011 Start Qty: 2.00

2

Cust Item ID:

Required Date: 12/12/2011 Req'd Qty: 2.00

2

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	Packaging	0.00							
130									
Packaging	Memo	0.00							
Packaging	Identify and pack for shipping as per PPP D412-742-018								
	Location: _____								
	PPP Rev: _____ <i>B</i>								
140	QC21- Final Inspection - Work Order Release	0.00							
140									
QC	Memo	0.00							
Quality Control									

*12/11/19**12/1/23**R 1201-20*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

November-28-11 9:02:10 AM

Work Order ID: 77176

77176

Parent Item: D412-742-018

D412-742-018

Parent Item Name: Cable Guard

Start Date: 28/11/2011

Required Date: 12/12/2011

Start Qty: 2.00

Required Qty: 2.00

Comments: IPP Rev:A New Issue 06-05-05 JLM
 IPP rev:B As per Rev B 06-08-03 JLM
 IPP revC per ecn 844 06.09.12 EC IPP Rev:D
 10.06.10 NAS 1515H3L was replace with D3672-1 DD verf:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D3672-1 *D3672-1* Phenolic Washer		Manufactured	No			110	Each	1,188.000	1	2			Ph =>

**

SP.

Location	Loc Qty	Loc Code
FP	424	
66821	424	
ST074	764	
72229	264	
76277	500	

20X

AN3C5A
AN3C5A
 Bolt

Purchased No

110 Each 1,297.000 /5

**

SP 12-01-19.

Location	Loc Qty	Loc Code
FP	7	
115835	7	
ST350	1290	
116419	28	
117343	17	
117764	52	
117872	2	
118451	191	
119127	500	
119749	500	

10X

W/O: 77176		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D412-742-018 PAR #: _____ Fault Category: Prod. Eng. NCR: (Yes) No DQA: Auto Date: 12/1/25
 Resolution: Repair Disposition: Repair QA: N/C Closed Date: 12/1/25

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
12/01/19	#100	Wrong qty for D3672-1 Re. w/o + Bom not create work Log.	12/01/19	ADD qty x9 per kit For D3672-1 should be qty x10 per kit	12/01/19	12/01/19	12/01/19	12/01/19
			05/01/12	update w/o + Bom attach copy of updated Bom for ref.	12/01/19		12/01/19 05/01/12	12/01/19
				Was change old w/o see Attach	12.01.24			

NOTE: Date & initial all entries

Picklist Print

November-28-11 9:02:10 AM

Page 2

Work Order ID: 77176

77176

Parent Item: D412-742-018

D412-742-018

Parent Item Name: Cable Guard

Start Date: 28/11/2011

Required Date: 12/12/2011

Start Qty: 2.00

Required Qty: 2.00

AN3C7A

Purchased

No

110

Each

203.0000

3 6

AN3C7A
BOLT

**

SP

Location

Loc Qty

Loc Code

ST351

203

113149

14

116169

1

117313

10

117619

12

117688

18

118422

48

119749

100

Loc

AN3C10A

Purchased

No

110

Each

20.0000

2 4

AN3C10A
Bolt

**

SP

Location

Loc Qty

Loc Code

ST351

20

112489

20

D3499-042

Manufactured

No

110

Each

0.0000

D3499-042
Cable Guard Assembly

**

AX
B 77179

AN960C10L

NAS1149C0332
R

Purchased

No

110

Each

0.0000

10 20

AN960C10L
washer

**

M119736 SP
12-01-19

November-28-11 9:02:10 AM

Shop Packet Print

Page 2

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART

DESIGN <i>[Signature]</i>	DRAWN BY <i>[Signature]</i>	DART AEROSPACE USA, INC. PORT HADLOCK, WA	
CHECKED <i>PH</i>	APPROVED <i>[Signature]</i>	DRAWING NO. DSI 9330	REV. D SHEET 1 OF 3
DATE 06.08.24		TITLE CABLE GUARD INSTALLATION	SCALE NTS
A	06.04.25	NEW ISSUE	
B	06.05.25	ADD AAI REF. P/N NOTE	
C	06.08.16	REVISE INSTALLATION LOCATION AND ADD D205-564 BEARPAW COMPATIBILITY NOTE	
D	06.08.24	ADD NARROW GHW INSTRUCTIONS	

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER

NO. 77176 *MLJ*

11/11/28

DART SERVICE INSTRUCTION

TO AMEND INSTALLATION INSTRUCTIONS IIN-D412-742 REV. B

REF. FAA STC: SR01583SE

REF. CANADIAN STC: SH05-37 ISSUE 1

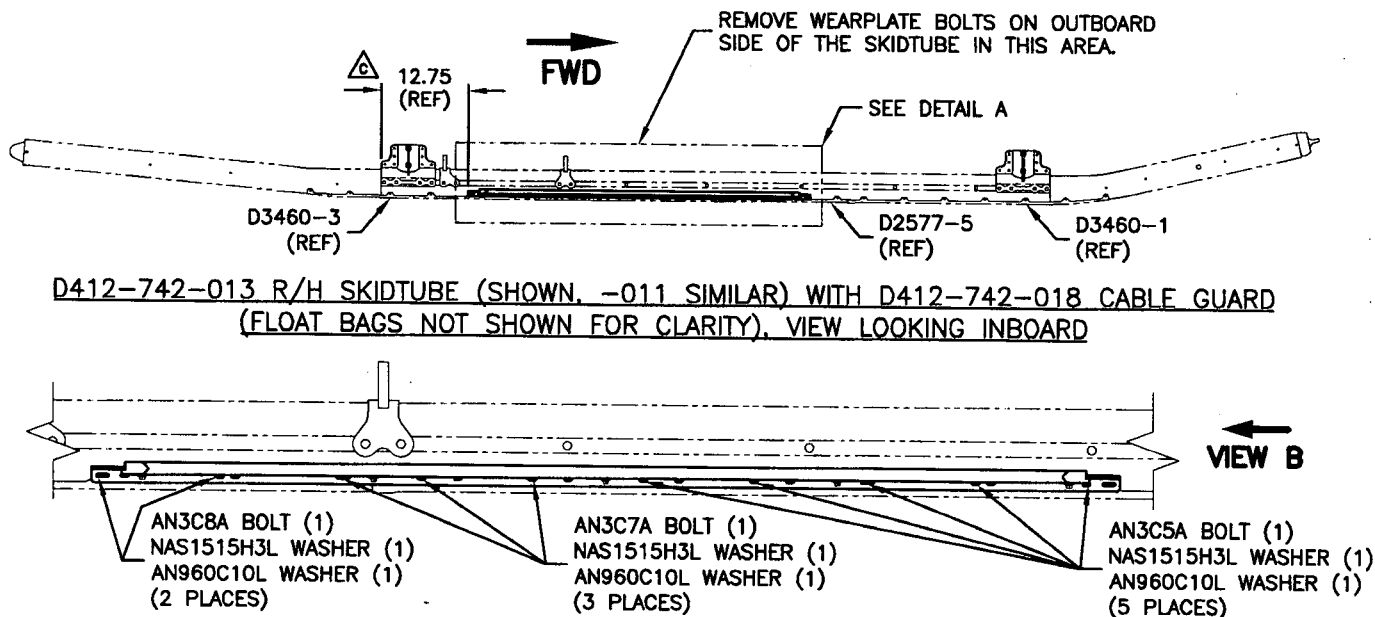
Customers who received Dart D412-742-018 CHG 001 Cable Guard and DSI 9330 Rev. A/B must remove their kit and replace it with D412-742-018 CHG 002 Cable Guard. The D412-742-018 CHG 002 Cable Guard shall be installed as per DSI 9330 Rev. C or later approved revision. The Dart D412-742-018 Cable Guard is designed to provide protection of the right hand skidtube and its flotation system for aircraft equipped with hoist provisions. The D412-742-018 CHG 002 Cable Guard is compatible with D412-742-011/-013 Float Skidtubes installed on either side of the aircraft. The D412-742-018 CHG 002 Cable Guard is also compatible with D412-742-011/-013 Float Skidtubes equipped with the Dart D205-564-011 Bearpaw.

NOTE: For aircrafts equipped with Aeronautical Accessories Inc's Hoist Support Assembly 412-142-300/-350/-400 (Ref. STC No. SH3189SO and SH3190SO), the Dart D412-742-018 CHG 002 Cable Guard Kit can be used as a replacement to AAI's Skid Guard 412-153-510 when the hoist is installed with the Dart Float Skidtubes.

INSTALLATION PROCEDURE

Remove and discard existing hardware securing the wearplates on the outside of the skidtube as shown. Apply a thin layer of Sikaflex-241/-291 or Proseal 890 or MIL-S-8802 Class 'B2' sealant and install the Dart D412-742-018 Cable Guard Kit using provided hardware. Ensure that all AN3 bolts that secure the Cable Guard to the skidtube are sealed with Sikaflex-241/-291 or Proseal 890 or MIL-S-8802 Class 'B2' sealant. Torque bolts to 15-25 in-lbs and apply a layer of LPS Procyon to the exposed hardware after torquing.

NOTE: For installations equipped with the Dart D205-564-011 Bearpaw, it is necessary to remove the clamps holding the bearpaw to the D412-742-011/-013 Skidtubes. Once the Cable Guard is installed in accordance with above instructions, re-install the clamps in accordance with D205-564 Installation Instructions to secure the Bearpaw.



DETAIL A: CABLE GUARD INSTALLATION (VIEWED FROM R/H SIDE OF A/C)

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

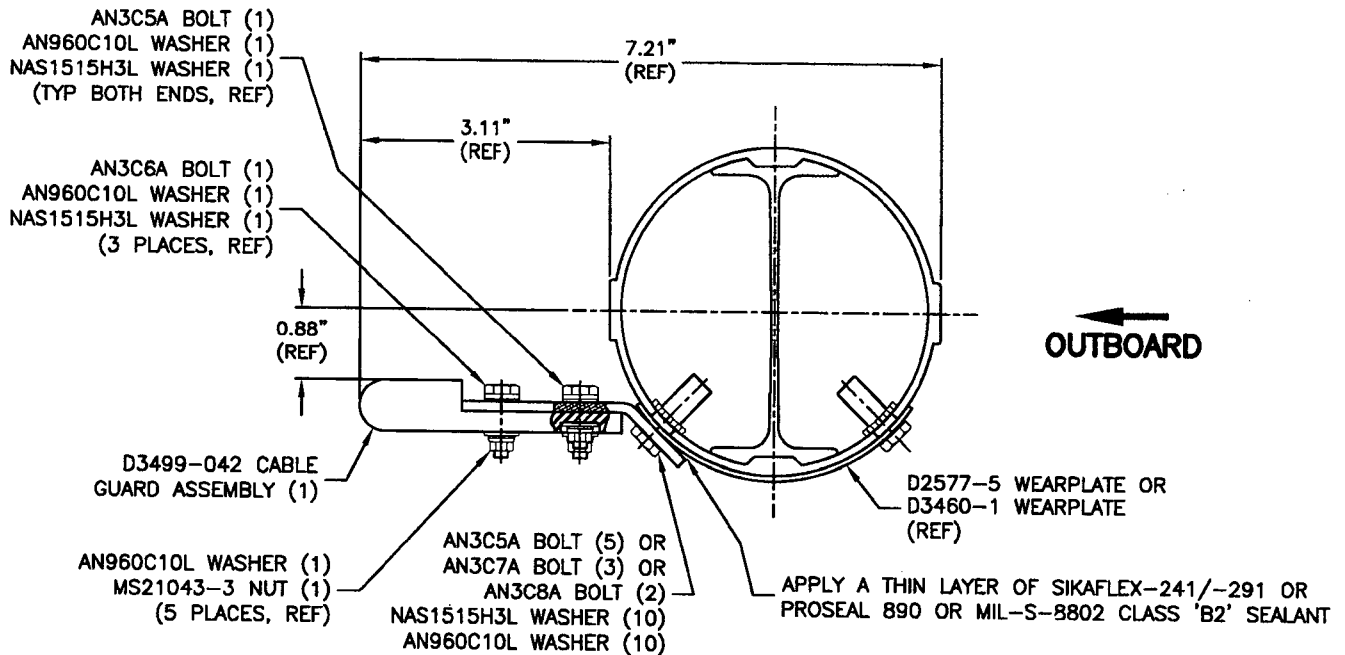
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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NOTE: Date & initial all entries

DART

DESIGN <i>B</i>	DRAWN BY <i>B</i>	DART AEROSPACE USA, INC. PORT HADLOCK, WA	
CHECKED <i>PH</i>	APPROVED <i>H</i>	DRAWING NO. DSI 9330	REV. D SHEET 2 OF 3
DATE 06.08.24		TITLE CABLE GUARD INSTALLATION	SCALE NTS



VIEW B: CABLE GUARD INSTALLATION
(VIEWED LOOKING AFT)

WEIGHT AND BALANCE

Installation	Weight	LATERAL		LONGITUDINAL	
		Arm	Moment	Arm	Moment
D412-742-018 CABLE GUARD KIT	3.8 lb 1.72 kg	58.2 in 1.48 m	221.2 lb 2.55 m kg	+/- 128.6 in +/- 3.27 m	+/- 488.7 in lb +/- 5.62 m kg

PARTS LIST

Qty -018	Part Number	Description
X	D412-742-018	CABLE GUARD KIT
1	D3499-042	CABLE GUARD ASSEMBLY
5	AN3C5A	BOLT
3	AN3C7A	BOLT
2	AN3C8A	BOLT
10	NAS1515H3L	WASHER
10	AN960C10L	WASHER

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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

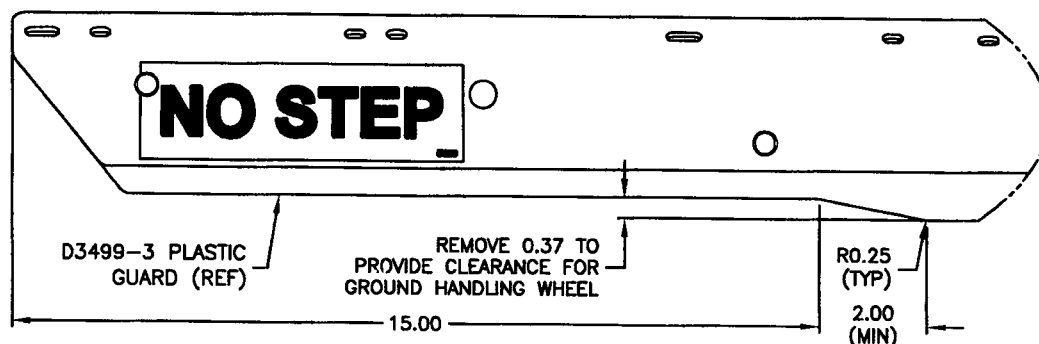
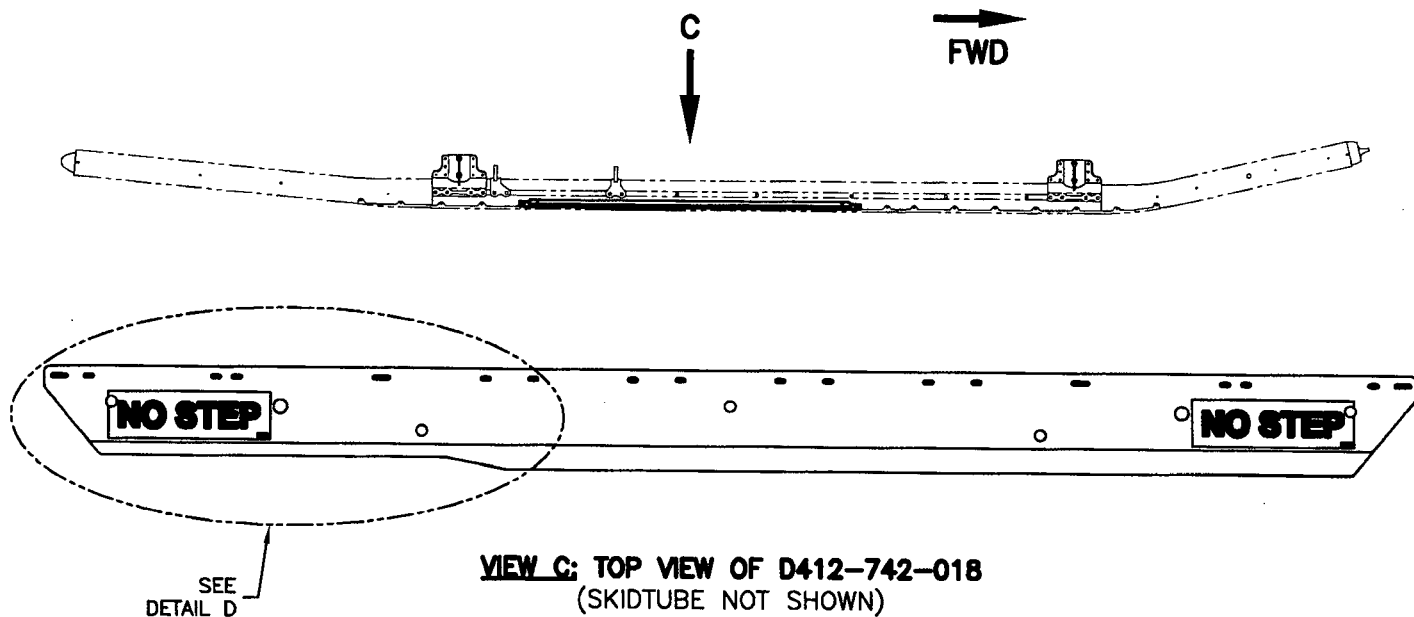
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

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DART

DESIGN <i>B</i>	DRAWN BY <i>B</i>	DART AEROSPACE USA, INC. PORT HADLOCK, WA	
CHECKED <i>PH</i>	APPROVED <i>[Signature]</i>	DRAWING NO. DSI 9330	REV. D SHEET 3 OF 3
DATE 06.08.24		TITLE CABLE GUARD INSTALLATION	SCALE NTS

FOR GROUND HANDLING WHEEL UNITS WITH NARROW WHEELSPANS, IT IS ACCEPTABLE TO TRIM THE D3499-3 PLASTIC GUARD AS PER DETAIL D BELOW.
NOTE: A SMOOTH GRADUAL SLOPE IS REQUIRED TO ALLOW THE HOIST CABLE TO MOVE FREELY OVER THE ENTIRE LENGTH OF THE CABLE GUARD. NO JAGGED EDGES ARE ALLOWED.



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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

5.3 D412-742-018 Cable Guard Parts List

Item	Qty -018	Part Number	Description
	X	D412-742-018	CABLE GUARD KIT
101	1	D3499-042	CABLE GUARD ASSEMBLY
102	1	*D3499-2	*MOUNTING PLATE
103	1	*D3499-3	*PLASTIC GUARD
104	2	*D3499-5	*PLACARD
105	2	*AN3C5A	*BOLT
106	3	*AN3C6A	*BOLT
107	10	*AN960C10L	*WASHER
108	5	*MS21043-3	*NUT
109	5	*D3672-1	*WASHER (REPLACES NAS1515H3L)
120	5	AN3C5A	BOLT
121	3	AN3C7A	BOLT
122	2	AN3C10A	BOLT
123	10	D3672-1	WASHER (REPLACES NAS1515H3L)
124	10	AN960C10L	WASHER

*DENOTES PART IS INCLUDED WITH D3499-042 ASSEMBLY ABOVE

[illegible]